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EXAMINER	
JACKSON, JAKIEDA R	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/526,573	DENSHAM ET AL.	
	Examiner	Art Unit	
	JAKIEDA R. JACKSON	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-108* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-108* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/4/05* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 56, 74, 92, 104 and 107 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 56, 92, 104 and 107 are drawn to a "program" *per se* as recited in the preamble and as such is/are non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361,31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

Claim 74 does not fall within a statutory category because data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361,31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines

structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 58, 94 and 106 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, Applicant claim an apparatus arranged to execute the method, however, it is uncertain whether the structure is associated with the apparatus.

Claim Objections

5. Claims 57, 93 and 108 are objected to because of the following informalities:

They merely claim a storage medium storing a program, however, if combined with the computer program which when run on a suitable data processor causes a processor to implement the method, then the 101 above and the objection would be overcome.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-22, 24-51, 53-69, 71-89, 91-99 and 100-108** are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka (PGPUB 2002/0108043).

Regarding **claim 1**, Tanaka discloses a method for processing a digital audio signal comprising the steps of:

providing a digital audio signal representing unimpaired audio information (audio signal; paragraphs 0048-0051);

compressing (compress) and encrypting (encrypt) the said digital audio signal to produce a first compressed and encrypted audio signal, the audio information of which is substantially unimpaired compared to that of the said digital audio signal (paragraphs 0048-0051);

producing an unencrypted second audio signal (non-encrypted; paragraphs 0048-0051); and

combining the said first and second audio signals to produce a combined signal comprising the compressed and encrypted first audio signal and the unencrypted second audio signal (paragraphs 0048-0051).

Regarding **claims 2 and 73**, Tanaka discloses a method wherein the digital audio signal is losslessly compressed to produce the first audio signal (paragraphs 0048-0051).

Regarding **claim 3**, Tanaka discloses a method wherein the first audio signal occurs as noise in the combined signal (audio; paragraphs 0048-0051).

Regarding **claims 4 and 75**, Tanaka discloses a method wherein the step of combining the first signal and the second signal comprises embedding the first signal as noise in the second signal (insert; paragraphs 0048-0051).

Regarding **claims 5, 50, 67, 80, 88 and 103**, Tanaka discloses a method wherein the step of combining comprises appending at least part of the first signal to the second signal (paragraphs 0048-0051).

Regarding **claim 6**, Tanaka discloses a method wherein the step of producing the second signal comprises impairing at least a portion of the digital signal (signal; paragraphs 0048-0051).

Regarding **claim 7**, Tanaka discloses a method wherein the step of producing the second signal comprises combining the digital signal with a third signal which impairs at least a portion of the digital signal (third signal; paragraphs 0102-0103).

Regarding **claim 8**, Tanaka discloses a method further comprising the steps of:

modulating the third signal (third signal; paragraphs 0102-0103); and

combining the modulated third signal with the digital signal (paragraphs 0102-0103).

Regarding **claim 9**, Tanaka discloses a method wherein the step of producing the first signal comprises:

compressing the digital signal (compress a signal; paragraphs 0048-0051); and

encrypting the compressed signal (encryption) without substantially increasing the number of bits of the compressed digital signal (bits; paragraph 0116).

Regarding **claim 10**, Tanaka discloses a method wherein the second signal is a sampled digital signal, each sample having more significant bits (MSBs) and less significant bits (LSBs) (bits; paragraphs 0102-0103).

Regarding **claim 11**, Tanaka discloses a method wherein the digital signal has a fixed point format (figure 8).

Regarding **claim 12**, Tanaka discloses a method wherein the first signal is combined with the second signal by replacing the LSBs of the second signal with at least some of the bits of the first signal (paragraphs 0102-0103).

Regarding **claim 13**, Tanaka discloses a method wherein a predetermined fixed number of LSBs of the second signal are replaced by at least some of the bits of the first signal (paragraphs 0102-0103).

Regarding **claim 14**, Tanaka discloses a method wherein, in the combined signal, the ratio of MSBs, representing the said second signal, to LSBs, representing the bits of the first signal, is variable (paragraphs 0102-0103).

Regarding **claim 15**, Tanaka discloses a method wherein the ratio is dependent on compression applied to the first digital signal (compression; paragraphs 0048-0051).

Regarding **claim 16**, Tanaka discloses a method wherein the combined signal includes data indicating which bits of the combined signal are LSBs and which bits are MSBs 9 paragraphs 0102-0103).

Regarding **claim 17**, Tanaka discloses a method further comprising the step of reducing an amount of data in the second signal (portion; paragraph 0132).

Regarding **claim 18**, Tanaka discloses a method comprising the step of reducing a sampling rate of the second signal (paragraphs; 0048-0051).

Regarding **claim 19**, Tanaka discloses a method further comprising providing a file containing the first signal and a file containing the second signal (first and second; paragraphs 0102-0103).

Regarding **claim 20**, Tanaka discloses a method wherein a ratio of MSBs, representing the said second signal, to LSBs, representing said first digital signal, is dependent on a number of bits in the files of the first signal and a number of bits of the second signal (paragraphs 0102-0103).

Regarding **claim 21**, Tanaka discloses a method wherein the bits of the first signal (signal) are distributed over samples of the second signal based on a ratio of the total number of encrypted bits in the encrypted signal file to the total number of samples of the second signal (paragraphs 0102-0103).

Regarding **claims 22 and 69**, Tanaka discloses a method wherein the ratio is approximated by an integer fraction **M/N**, and comprising the steps of:

selecting groups of N samples (paragraphs 0102-0103); and

distributing, over the N samples of each group, corresponding sets of M bits (paragraphs 0102-0103 with figure 8).

Regarding **claim 24**, Tanaka discloses a method wherein the second signal is a sampled digital signal, each sample having most significant bits (MSBs) and less significant bits (LSBs), and comprising the step of dividing the second signal into blocks each block comprising a plurality of samples (paragraphs 0102-0103).

Regarding **claim 25**, Tanaka discloses a method wherein each block of the second signal contains the same predetermined number of samples (second; paragraphs 0102-0103).

Regarding **claim 26**, Tanaka discloses a method further comprising the steps of:

analysing the signal level of the second signal (signal; paragraphs 0048-0051); and

setting the number of samples per block based on signal level (paragraphs 0102-0103).

Regarding **claim 27**, Tanaka discloses a method wherein the number of samples per block in the second signal varies (paragraphs 0102-0103).

Regarding **claim 28**, it is interpreted and rejected for similar reasons as set forth in claim 26.

Regarding **claim 29**, Tanaka discloses a method further comprising providing, in the second signal, data indicating the boundaries of the blocks (paragraphs 0102-0103).

Regarding **claim 30**, Tanaka discloses a method wherein, in each block, the first signal is combined with the second signal by replacing the LSBs of the second signal with bits of the first signal and the ratio of MSBs (bits), representing the said second signal, to LSBs, representing the bits of the first signal, in each block is a function of the signal levels of the samples of the second signal in the block (paragraphs 0102-0103).

Regarding **claims 31, 81 and 84**, Tanaka discloses a method wherein the data indicating the block boundaries includes data indicating the number of samples in each block (figure 8 with paragraphs 0102-0103).

Regarding **claim 32**, Tanaka discloses a method wherein the step of producing the first signal further comprises the steps of:

compressing and encrypting the digital audio signal (compressing the signal; paragraphs 0048-0051), and

wherein at least the step of encrypting comprises:

selecting sections of the compressed digital audio signal (compress; paragraphs 0048-0051);

separately encrypting each section (encrypt; paragraphs 0048-0051); and

providing data in the first signal indicating the section boundaries (paragraphs 0048-0051).

Regarding **claim 33**, Tanaka discloses a method further comprising providing a file containing the digital audio signal to be compressed (compress) and encrypted (encrypt; paragraphs 0048-0051).

Regarding **claim 34**, Tanaka discloses a method further comprising the steps of:

compressing the whole file (compress; paragraphs 0048-0051); and

encrypting (encrypt) the sections of the compressed file (compress; paragraphs 0048-0051).

Regarding **claim 35**, Tanaka discloses a method further comprising the steps of:

selecting sections of the file (paragraphs 0102-0103);

separately compressing (compress) and encrypting (encrypt) each sections (paragraphs 0048-0051); and

providing each section with data at least identifying the section.

Regarding **claims 36 and 82**, Tanaka discloses a method further comprising the steps of:

encrypting at least one section according to one encryption key (encryption key; paragraph 0099);

encrypting at least one other section according to another key (paragraph 0099); and

storing data indicating the correspondence between the sections and the keys (paragraphs 0099).

Regarding **claim 37**, Tanaka discloses a method wherein the correspondence data is stored in the first digital signal (digital signal; paragraphs 0048-0051).

Regarding **claim 38**, Tanaka discloses a method wherein the data indicating the section boundaries identifies the data included in the sections (paragraphs 0102-0103 with figure 8).

Regarding **claim 39**, Tanaka discloses a method further comprising the step of compressing at least part of the second signal and wherein the combining step comprises combining the first signal (first signal) with the compressed second signal (compress signal; paragraphs 0048-0051).

Regarding **claims 40, 79 and 89**, Tanaka discloses a method wherein the compressed second signal comprises auxiliary data space within the data structure thereof, and comprising the step of placing at least some of the bits (bits) of the first digital signal (signal) in the said auxiliary data space of the compressed second signal (paragraphs 0102-0103).

Regarding **claim 41**, Tanaka discloses a method wherein the second signal is compressed according to an MPEG standard (MPEG; paragraphs 0048-0051).

Regarding **claim 42**, Tanaka discloses a method wherein the step of producing the first digital signal comprises:

receiving the digital signal from a streaming source (signal; paragraphs 0048-0051);

dividing the digital stream into segments each comprising a predetermined number of samples (paragraphs 0102-0103 with figure 8) ; and

separately compressing (compress) and encrypting each segment (encrypt; paragraphs 0048-0051).

Regarding **claim 43**, Tanaka discloses a method further comprising;

encrypting all sections according to the same key or encrypting at least one section according to one encryption key (encryption key), and at least one other section is encrypted according to another key (paragraph 0099); and

storing data indicating the correspondence between the sections and the keys (keys; paragraph 0099).

Regarding **claim 44**, Tanaka discloses a method wherein the correspondence data is stored in the first digital signal (paragraphs 0048-0051).

Regarding **claim 45**, Tanaka discloses a method wherein the first signal is combined with the second signal by replacing, in samples of the second signal, the LSBs of the second signal with the bits of the first signal (bits; paragraphs 0102-0103).

Regarding **claim 46**, Tanaka discloses a method wherein a predetermined fixed number of LSBs of a sample of the second signal are replaced by the bits of the first signal (bits; paragraphs 0102-0103).

Regarding **claim 47**, Tanaka discloses a method wherein, in samples of the combined signal, the ratio of MSBs, representing the second signal, to LSBs, representing the bits of the first signal, is variable (bits; paragraphs 0102-0103).

Regarding **claim 48**, Tanaka discloses a method wherein the ratio is dependent on an amount of compression (compression) applied to the first signal (signal; paragraphs 0048-0051).

Regarding **claim 49**, Tanaka discloses a method wherein the combined signal includes data indicating which bits of the combined signal are LSBs and which bits are MSBs (paragraphs 0102-0103 paragraphs 0102-0103).

Regarding **claims 51 and 83**, Tanaka discloses a method further comprising the steps of selecting groups of N samples and distributing over the N samples of each group corresponding sets of M bits of the first signal, where the ratio M/N is an integer fraction (bits; paragraphs 0102-0103).

Regarding **claim 53**, Tanaka discloses a method further comprising the step of recording the combined signal on a recording medium (recording medium; paragraph 0128).

Regarding **claim 54**, Tanaka discloses a method further comprising providing the combined signal to a signal distribution system (distributed; paragraph 0005).

Regarding **claim 55**, Tanaka discloses a method further comprising providing the combined signal to a transmission system (transmitted; paragraph 0005).

Regarding **claims 56, 92, 104 and 107**, Tanaka discloses a computer program (program) which when run on a suitable data processor (computer) causes a processor to implement the method (paragraph 0134).

Regarding **claims 57, 93 and 108**, Tanaka discloses a storage medium storing a program (recording medium; paragraph 0134).

Regarding **claims 58, 94 and 106**, Tanaka discloses an apparatus arranged to execute the method (paragraph 0134).

Regarding **claim 59**, Tanaka discloses an apparatus for processing a digital signal comprising:

a first input for receiving a digital audio signal representing complete (audio signal) and unimpaired audio information (paragraphs 0048-0051);

a compressor (compress) and encryptor (encrypt) arranged to compress and encrypt the digital audio signal arranged to produce a compressed and encrypted first audio signal, the audio information of which is substantially unimpaired compared to that of the digital audio signal (paragraphs 0048-0051);

a second input for receiving an unencrypted second audio signal (non-encrypted; paragraphs 0048-0051); and

a signal combiner arranged to combine the first and the second audio signals to produce a combined signal comprising the compressed and encrypted audio signal and the unencrypted second signal (paragraphs 0048-0051).

Regarding **claim 60**, it is interpreted and rejected for similar reasons as set forth in claim 1.

Regarding **claim 61**, Tanaka discloses an apparatus further comprising a second signal producer operable to produce the unencrypted second audio signal (non-encrypted; paragraphs 0048-0051).

Regarding **claims 62 and 85**, Tanaka discloses an apparatus wherein the second signal producer further comprises a signal impairing for impairing the digital audio signal to produce said second signal (paragraphs 0048-0051).

Regarding **claim 63**, Tanaka discloses an apparatus wherein the second signal producer comprises a second combiner for combining the digital audio signal with a degradation signal that degrades the digital audio signal to produce the second signal (paragraphs 0048-0051).

Regarding **claim 64**, Tanaka discloses an apparatus further comprising a modulator for modulating the degradation signal and wherein the second combiner is arranged to combine the modulated degradation signal with the digital audio signal to produce the second signal (paragraphs 0048-0051).

Regarding **claim 65**, Tanaka discloses an apparatus wherein the second signal is a sampled digital signal, each sample having most significant bits (MBSs) and less significant bits (LSBs) and wherein the signal combiner is operable to combine the first signal with the second signal by replacing the LSBs of the second signal with bits of the first signal (bits; paragraphs 0102-0103).

Regarding **claim 66**, Tanaka discloses an apparatus wherein the signal combiner is arranged to control a ratio of the number of LSBs to MSBs according to the compression ratio achieved by the compressor (bits; paragraphs 0102-0103).

Regarding **claim 68**, Tanaka discloses an apparatus wherein the signal combiner is arranged to distribute the bits of the first signal over samples of the second signal based on a ratio of the total number of encrypted bits in the encrypted first audio signal to the total number of samples of the second signal (paragraphs 0102-0103).

Regarding **claim 71**, Tanaka discloses an apparatus further comprising a second compressor operable to compress the second signal, the signal combiner being arranged to combine the first signal with the compressed second signal (compress signal; paragraph 0048-0051).

Regarding **claim 72**, Tanaka discloses an apparatus wherein the compression ratio of the second compressor is dependent on the compression ratio achieved by the compressor (compress; paragraphs 0048-0051).

Regarding **claim 74**, Tanaka discloses a data structure, that is machine-interpretable, comprising:

a combination of a compressed (compress) and subsequently encrypted first digital audio signal (encrypt), the audio information of which is substantially unimpaired (paragraphs 0048-0051); and

an unencrypted second digital audio signal (non-encruypted; paragraphs 0048-0051).

Regarding **clam 76**, Tanaka discloses a data structure, in which MSBs of a combined signal represent the second digital audio signal and LSBs represent the first digital audio signal (paragraphs 0102-0103).

Regarding **clam 77**, Tanaka discloses a data structure, data indicating a boundary between the LSBs and the MSBs (bits; paragraphs 0102-0103).

Regarding **clam 78**, Tanaka discloses a data structure, wherein a ratio of LSBs to MSBs per sample varies (bits; paragraphs 0102-0103).

Regarding **claims 86 and 91**, Tanaka discloses a method of recovering a first signal from a combination of a first, compressed and encrypted, digital audio signal combined with a second signal, the audio information of the first audio signal being substantially unimpaired, the method comprising the steps of:

separating the first signal from the combination (paragraphs 0048-0051);

decrypting the separated first signal (decrypt; paragraphs 0048-0051); and

decompressing the decrypted first signal to recover the substantially unimpaired audio information thereof (paragraphs 0048-0051).

Regarding **claim 87**, Tanaka discloses a method wherein the first signal is represented by Less Significant Bits (LSBs) of the combined signal and the second signal is represented by Most Significant Bits (MSBs) of the combined signal and further comprising the step of discarding the MSBs to separate the first signal from the second signal (bits; paragraphs 0102-0103).

Regarding **claim 95**, Tanaka discloses a system comprising at least first and second processors, the system being adapted to execute a method of transferring a digital signal representing content from the first processor to the second processor, the method comprising the steps of:

using the first processor to implement the method of to produce the combined signal and to associate an identifier with the combined signal for identifying the combined signal (signal,; paragraphs 0048-0051);

storing the identifier (paragraphs 0048-0051);

transferring the combined signal to the second processor (computer; paragraph 01340;

at the second processor, deriving the identifier associated with the combined signal (signal; paragraphs 0048-0051);

transferring to the second processor, at least one key associated with the said identifier, based on one or more predetermined conditions for decrypting the encrypted first signal (encrypt; paragraph 0048-0051); and

utilizing the second processor to separate the first signal from the second signal and to restore the first signal (signal; paragraphs 0048-0051).

Regarding **claim 96**, Tanaka discloses a system transaction server and at least first and second clients, the system being adapted to execute a method of transferring a digital signal representing content from the first client to the second client, the method comprising the steps of:

using the first client to implement the method to produce the combined signal and associating an identifier with the combined signal for identifying the combined signal (signal; paragraphs 0048-0051);

providing, to the transaction server, the identifier and at least one key for decrypting the encrypted signal and storing, in the transaction server, the identifier and the at least one key (key; paragraph 0099); transferring the combined signal to the second client (paragraphs 0048-0051);

deriving the identifier associated with the combined signal (paragraphs 0048-0051);

transferring the identifier from the second client to the transaction server;

transferring from the transaction server to the second client at least one key associated with the said identifier, based on one or more predetermined conditions, for decrypting the encrypted first signal; and using the second client to separate the first

signal from the second signal, and using the decryption key decrypt the first signal (key), decompress the decrypted to restore the digital signal (signal; paragraphs 0048-0051).

Regarding **claim 97**, Tanaka discloses a method of processing a digital signal comprising the steps of: providing a first digital signal representing first information; providing a second digital signal; and embedding the first signal in the second signal by replacing Less Significant Bits (LSBs) of the second signal by bits of the first signal and retaining More Significant Bits (MSBs) of the second signal, whereby the first signal occurs as noise in the second signal (bits; paragraphs 0102-0103).

Regarding **claim 98**, Tanaka discloses a method of processing a digital signal comprising the steps of:

providing a first digital signal representing first information (signal; paragraphs 0048-0051);

providing a second digital signal (signal; paragraphs 0048-0051); and

embedding the first signal in the second signal by selecting groups of N samples and distributing over the N samples of each group corresponding sets of M samples of the first signal, where the ratio M/N is an integer fraction (paragraphs 0102-0103 with figure 8).

Regarding **claim 100**, Tanaka discloses a method wherein the first signal is a compressed signal (compress; paragraphs 0048-0051).

Regarding **claim 101**, Tanaka discloses a method wherein the first signal is an encrypted signal (encrypt; paragraphs 0048-0051).

Regarding **claim 102**, Tanaka discloses a method g a digital signal comprising the steps of:

providing a first digital signal representing substantially unimpaired first information, the first signal being a compressed and/or encrypted signals (encrypt; paragraphs 0048-0051);

providing an unencrypted second digital signal representing second information, and which is compressed according to a compression format having auxiliary data space (compress; paragraphs 0048-0051);

combining the first signal comprising the substantially unimpaired first information with the second signal (paragraphs 0048-0051); and

embedding at least part of the first signal being embedded in the auxiliary data space of the second signal (insert; paragraphs 0048-0051).

Regarding **claim 105**, Tanaka discloses a method wherein the second signal is an audio signal (audio signal; paragraphs 0048-0051).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claims 23, 52, 70, 90 and 99** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka.

Regarding **claims 23, 52, 70 and 99**, Tanaka discloses a method for processing a digital audio signal, but does not specifically teach a method further comprising the steps of:

scaling a value A of each of the N samples according to A'[X]=(\A [X]/S)*S where: X is an ordinal numbering of the samples and equals 0 to N-1; and S=2.sup.R where R is M/N; and

replacing A'[X] by A"[X]=A'[X]+V/S.sup.X for X>0, and

by A"[0]=A'[0]+mod S for X=0,

where for each of X=N-1 to 0, V is replaced by V-V/S.sup.X, V initially being the value of the M bits when X=N-1.

However, this is a well known obvious variant of Tanaka's formula (paragraph 0056), which shows where the encryption was inserted in the digital data.

Regarding **claim 90**, it is interpreted and rejected for similar reasons as set forth in claim 23.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAKIEDA R. JACKSON whose telephone number is (571)272-7619. The examiner can normally be reached on Monday-Friday from 5:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

/Jakieda R Jackson/
Examiner, Art Unit 2626
April 10, 2009